THE MINISTER OF STATE OF THE MINISTRY OF PLANNING AND PROGRAMME IMPLEMENTATION AND MINISTER OF STATE OF THE MINISTRY OF SCIENCE AND TECHNOLOGY (SHRI YOGINDER K. ALAGH): (a) Yes, Sir.

(b) Government have noted the contents of Dr. Gopalakrishnan's statements and are conscious of the need for ensure-ing safety in all nuclear installations. All safety issues are discussed in the Plant and Unit Level Safety Committees of the Atomic Energy Regulatory Board and in the Safety Review Committee for Operating Plants (SARCOP) and are resolved at the respective levels.

(c) No, Sir.

Vertical Solar Energy Pannels

1802. DR SHRIKANT RAMCHANDRA JICHKAR:
SHRIMATI BASANTI SARMA:

Will the PRIME MINISTER be pleased to state:

(a) whether vertical Solar Energy Pannels are available in the country;

(b) if so, where and what is its unit cost;

(c) whether Government are aware that vertical pannels would be more popular; and

(d) if so, what steps are being taken to popularise such pannels?

THE MINISTER OF STATE IN THE MINISTRY OF NON-CONVENTIONAL ENERGY SOURCES (DR. S. VENUGOPALACHARI): (a) and (b) Flat plate panels for solar energy conversion through the photovoltaic and thermal routes are manufactured in the country by a number of public and private sector companies. These panels are normally mounted at an inclination so that maximum possible solar energy incident on the panel surface can be utilised. The unit cost of a photovoltaic module is about Rs. *175/-* per watt. The unit cost of a solar thermal collector is about Rs. 4,000/- per sq. meter of collector area.

(c) and (d) Flat plate solar panels for photovoltaic and thermal applications are already in use in the country. An aggregate area of 4.0 lakh sq. meters of solar collectors has been installed in the country for water heating, drying and desalination. An aggregate of over 18 MW of photovoltaic systems have been installed for applications such as lighting, water pumping, telecommunication, etc.

A number of fiscal and other incentives are available for the manufacture and use of solar energy products, such as 100% depreciation for income tax purposes, exemption from excise duty, concessional rates of custom duties and soft loan. In addition, subsidy is also available for some solar energy applications.

Selection on sites for establishing Oil Refineries

1803. SHRIMATI JAYANTI PATNAIK: Will the PRIME MINISTER be pleased to state:

(a) whether Government have selected sites for the establishment of oil refineries in the country;

(b) if so, the sites selected for the purpose in Orissa;

(c) the number of oil refineries proposed to be set up during the 8th and 9th Five Year Plans;

(d) the details of steps taken to expedite the establishment of those oil refineries?

THE MINISTER OF STATE IN THE MINISTRY OF PETROLEUM AND NATURAL GAS (SHRI T.R. BAALU): (a) to (d) New Refineries Projects to be set up/under implementation by PSUs/ JVCs during the 8/9th Plan period in Public /Joint Sector are as follow:—

Name of the refinery
Public Sector

1. Panipat Refinery.